

REMARKS

Amendment summary

Claim 1 is amended to incorporate the subject matter of claims 5 and 6, which are canceled.

Upon entry of this Amendment, claims 1-4 and 7-21 will be pending.

No new matter is added by this Amendment, and Applicant respectfully submits that entry of this Amendment is proper.

Status of the claims

Claims 1-6 and 9 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Cottrell et al. (U.S. Patent No. 6,639,006) (hereinafter “Cottrell”). Claims 1-6 and 9 have also been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over the combination of US 2004/0009414 (Araki ’414), US 2003/0232259 (Araki ‘259), Cottrell and Furukawa (U.S. Patent No. 6,203,951). In addition, claims 1-6 and 9 have been rejected on the ground of nonstatutory obviousness-type double patenting based on U.S. Patent No. 7,169,516 in view of Cottrell and Furukawa. Further, claims 1-6 and 9 have been provisionally rejected on the ground of non-statutory obviousness-type double patenting as allegedly being unpatentable over the claims of copending Application No. 10/455,413 in view of Cottrell and Furukawa.

Response to rejection of claims 1-6 and 9 under 35 U.S.C. § 102 based on Cottrell

Claims 1-6 and 9 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Cottrell. Applicant respectfully submits that Cottrell does not anticipate or render obvious the presently claimed invention because (1) Cottrell does not disclose or suggest the use

of both the presently recited metal complex and the presently recited monomer; (2) the image-forming mechanism in Cottrell is distinct from the image-forming mechanism of the presently claimed invention; and (3) Cottrell teaches that it is preferable not to add a photopolymerization initiator that generates radicals.

The present claims recite a dye-containing curable composition containing at least an alkali soluble binder, an organic-solvent-soluble dye, a radiation-sensitive compound, a monomer, and a metal complex of a transition element in which the maximum value of the molar absorption coefficient ϵ in the visible light range is smaller than that of the organic-solvent-soluble dye. In addition, the radiation-sensitive compound is at least one kind selected from a photopolymerization initiator and a photo-acid-generating agent, and the dye-containing curable composition is structured as a negative-type dye-containing curable composition.

Applicant respectfully submits that Cottrell does not anticipate the presently claimed invention because Cottrell does not disclose or suggest the presently recited monomer in combination with the presently recited metal complex. Accordingly, each and every element of the presently claimed invention is not present in Cottrell.

In addition, Applicant respectfully submits that Cottrell is distinct from the presently claimed invention because the image-forming mechanism in Cottrell is distinct from the image-forming mechanism of the presently claimed invention. The image-forming mechanism of Cottrell makes the alkali-soluble binder insoluble in order to cross-link each acid group of the alkali-soluble binders by the addition of acids or tertiary amines (see paragraph 12, lines 14 to 15 of Cottrell). In contrast, in the present invention, acid groups of the alkali soluble binder do not react. Instead, the other reactive groups are involved in the cross-linking reaction. Accordingly,

Applicant respectfully submits that Cottrell is distinct from the presently claimed invention in this manner.

Applicant also respectfully submits that Cottrell does not anticipate or render obvious the presently claimed invention because Cottrell teaches that it is preferable not to add a photopolymerization initiator that generates radicals. Cottrell discloses that the ink may comprise radical scavengers and/or UV absorbers to help improve light and heat fastness of the ink (see paragraph 16, lines 42 to 63). Hence, Cottrell discloses restraining the decomposition of dyes by radicals. Cottrell also does not disclose the addition of radical cross-linkable components in either its examples or its specification and does not disclose what effect such an addition may have on the composition therein. Thus, it appears to be preferable not to add a photopolymerization initiator, which generates radicals, in the ink of Cottrell.

In view of the above, Applicant respectfully submits that Cottrell does not anticipate or render obvious the presently claimed invention because (1) Cottrell does not disclose or suggest the use of both the presently recited metal complex and the presently recited monomer; (2) the image forming mechanism in Cottrell is distinct from the image-forming mechanism of the presently claimed invention; and (3) Cottrell teaches that it is preferable not to add a photopolymerization initiator that generates radicals. Applicant therefore respectfully requests the reconsideration and withdrawal of this § 102 rejection.

Response to rejection of claims 1-6 and 9 under 35 U.S.C. § 103 based on Araki '414, Araki '259, Cottrell, and Furukawa

Claims 1-6 and 9 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over the combination of Araki '414, Araki '259, Cottrell and Furukawa. Applicant

respectfully submits that the presently claimed invention is not rendered obvious by the cited references because it would not be obvious to combine the references in the manner set forth in the Office Action.

As an initial matter, Applicant respectfully submits that it would not have been obvious to a person having ordinary skill in the art to add the metal complex of Cottrell or Furukawa to the dye-containing curable composition claimed in the '516 Patent to improve both light fastness and retained layer rate after development of a color filter. Table 1 of the present specification (see page 102 of the present specification) shows the result of the retained layer rate after development of the color filter other than the result of the light fastness of the color filter. As shown in Table 1, the results of examples employing the dye-curable composition of the present invention containing the metal complex are superior to the results of the comparative examples of dye-curable compositions not containing the metal complex. To improve the retained layer rate after development by adding the metal complex is not described in Cottrell or Furukawa. Therefore, Applicant respectfully submits that it would not have been obvious to a person having ordinary skill in the art to add the metal complex of Cottrell or Furukawa to the dye-containing curable composition claimed in the '516 Patent to improve both light fastness and retained layer rate after development of a color filter.

With respect to Furukawa, the deficiencies in Furukawa are not remedied by Cottrell, which is discussed above. Like Cottrell, Furukawa does not anticipate or render obvious the presently claimed invention because (1) Furukawa does not disclose or suggest the use of both the presently recited metal complex and the presently recited monomer; (2) the image forming mechanism in Furukawa is distinct from the image-forming mechanism of the presently claimed

invention; and (3) Furukawa teaches that it is preferable not to add a photopolymerization initiator that generates radicals.

Furukawa does not anticipate the presently claimed invention because Furukawa does not disclose or suggest the presently recited monomer in combination with the presently recited metal complex. Accordingly, each and every element of the presently claimed invention is not present in Furukawa.

In addition, Furukawa is distinct from the presently claimed invention because the image forming mechanism in Furukawa is distinct from the image-forming mechanism of the presently claimed invention. The image-forming mechanism of Furukawa makes the alkali-soluble binder insoluble in order to cross-link each acid group of the alkali-soluble binders by the addition of acids or tertiary amines (see paragraph 12, lines 14 to 15 of Furukawa). In contrast, in the present invention, acid groups of the alkali soluble binder do not react. Instead, the other reactive groups are involved in the cross-linking reaction. Accordingly, Applicant respectfully submits that Furukawa is distinct from the presently claimed invention in this manner.

Applicant also respectfully submits that Furukawa does not anticipate or render obvious the presently claimed invention because Furukawa teaches that it is preferable not to add a photopolymerization initiator that generates radicals. Furukawa discloses that the ink may comprise radical scavengers and/or UV absorbers to help improve light and heat fastness of the ink (see paragraph 16, lines 42 to 63). Hence, Furukawa discloses restraining the decomposition of dyes by radicals. Furukawa also does not disclose the addition of radical cross-linkable components in either its examples or its specification and does not disclose what effect such an addition may have on the composition therein. Thus, it appears to be preferable not to add a photopolymerization initiator, which generating radicals, in the ink of Furukawa.

Accordingly, Applicant respectfully submits that the presently claimed invention is not rendered obvious by the cited references. Applicant therefore respectfully requests the reconsideration and withdrawal of this §103 rejection

Response to obviousness-type double patenting rejection of claims 1-6 and 9

Claims 1-6 and 9 have been rejected on the ground of nonstatutory obviousness-type double patenting based on U.S. Patent No. 7,169,516 in view of Cottrell and Furukawa. Applicant respectfully submits that the presently claimed invention is not obvious over the claims of the '516 Patent.

In particular, as mentioned above, Applicant respectfully submits that it would not have been obvious to a person having ordinary skill in the art to add the metal complex of Cottrell or Furukawa to the dye-containing curable composition claimed in the '516 Patent to improve both light fastness and retained layer rate after development of a color filter. Table 1 of the present specification (see page 102 of the present specification) shows the result of the retained layer rate after development of the color filter other than the result of the light fastness of the color filter. As shown in Table 1, the results of examples employing the dye-curable composition of the present invention containing the metal complex are superior to the results of the comparative examples of dye-curable compositions not containing the metal complex. To improve the retained layer rate after development by adding the metal complex is not described in Cottrell or Furukawa. Therefore, Applicant respectfully submits that it would not have been obvious to a person having ordinary skill in the art to add the metal complex of Cottrell or Furukawa to the dye-containing curable composition claimed in the '516 Patent to improve both light fastness and retained layer rate after development of a color filter.

Applicant therefore respectfully submits that the presently claimed invention is patentably distinct from the claims of the '516 Patent, and respectfully requests the reconsideration and withdrawal of this obviousness-type double patenting rejection.

Response to provisional obviousness-type double patenting rejection of claims 1-6 and 9

Claims 1-6 and 9 have been provisionally rejected on the ground of non-statutory obviousness-type double patenting as allegedly being unpatentable over the claims of copending Application No. 10/455,413 in view of Cottrell and Furukawa.

Applicant respectfully submits that, in view of the above and in view of the amendments to the claims, the Examiner may wish to reconsider the provisional obviousness-type double patenting rejection.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Travis B. Ribar
Registration No. 61,446

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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